

WEST et al  
Appl. No. 10/517,653  
February 6, 2008

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**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 (previously presented). A method of stimulating neuronal regenerative growth or repair comprising exposing a target neuron or neuronal area to a solution of the metallothionein isoform MT-IIA.

2 (original). A method according to claim 1 wherein said contact is by direct interaction of the target neuron or neuronal site with said solution.

3 (previously presented). A method according to claim 1 wherein said MT-IIA is naturally occurring human MT-IIA.

4 (previously presented). A method according to claim 1 wherein said MT-IIA is produced by chemical synthesis or by production in genetically manipulated cells or organisms.

5 (original). A method according to claim 4 wherein said MT-IIA is recombinant human MT-IIA.

WEST et al  
Appl. No. 10/517,653  
February 6, 2008

6 (previously presented). A method according to claim 1 wherein said solution has a concentration of up to about 5  $\mu$ g/ml metallothionein in a neurologically acceptable carrier.

7 (original). A method according to claim 6 wherein said solution has a concentration of about 5  $\mu$ g/ml metallothionein in solution.

8 (previously presented). A method according to claim 1 further including exposing said neuron or neuronal area to any one or a combination of metallothionein isoforms selected from MT-I, MT-II, MT-III and MT-IV.

9 (original). A method according to claim 8 wherein said target neuron or neuronal area is exposed simultaneously to a combination of MT-IIA and any one or a combination of metallothionein isoforms selected from MT-I, MT-II, MT-III and MT-IV.

10 (original). A method according to claim 8 wherein said target neuron or neuronal area is exposed sequentially to a combination of MT-IIA followed by any one or a combination of metallothionein isoforms from MT-I, MT-II, MT-III and MT-II.

11 (original). A method according to claim 8 wherein said target neuron or neuronal area is exposed sequentially to a combination of any one of metallothionein isoforms selected from MT-I, MT-II, MT-IIA, MT-III and MT-IV.

WEST et al  
Appl. No. 10/517,653  
February 6, 2008

12 (previously presented). A method according to claim 11 wherein said neuron or neuronal area is located in the brain.

13 (previously presented). A method according to claim 1 wherein said solution is administered to said neuron or neuronal area by any one or a combination of direct injection, intraperitoneal injection, oral administration or via genetically modified cells including stem cells.

14 (previously presented). A method of treatment of Alzheimer's Disease comprising administration to a patient in need of treatment a therapeutic composition including metallothionein in accordance with the method of claim 1.

15 (previously presented). A method of treatment of Parkinson's Disease comprising administration to a patient in need of treatment a therapeutic composition including metallothionein in accordance with the method of claim 1.

16 (previously presented). A method of treatment of motor neuron disease comprising administration to a patient in need of treatment a therapeutic composition including metallothionein in accordance with the method of claim 1.

17 (previously presented). A method of treatment of head injury comprising administration to a patient in need of treatment a therapeutic composition including metallothionein in accordance with the method of claim 1.

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February 6, 2008

18-27 (canceled)..

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